NEW SPECIES OF *ARDISIA* (MYRSINACEAE) FROM ECUADOR AND PERU

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ABSTRACT

Routine determination of specimens received as gift for determination resulted in the discovery of four new species of *Ardisia*, from Ecuador and Peru. *Ardisia premontana* Pipoly, *A. zakii* Pipoly, *A. flavida* Pipoly, and *A. websterii* Pipoly are described, illustrated, and their phylogenetic relationships are discussed.

RESUMEN

Al determinar pliegos de herbario recibidos como regalo para su determinación, se encontraron cuatro especies nuevas pertenecientes al género *Ardisia*, y procedentes de Ecuador y Perú. Se describen e ilustran *Ardisia premontana* Pipoly, *A. zakii* Pipoly, *A. flavida* Pipoly, y *A. websterii* Pipoly, y se discuten sus relaciones filogenéticas.

INTRODUCTION

The genus *Ardisia* Swartz is pantropical and contains approximately 400–500 species (Chen Cheih & Pipoly 1996). There are two geographic regions with high concentrations of species, Panama and adjacent Colombia, and the Malesian area (Stone 1982, 1989, 1990, 1992). The genus is currently defined by the combination of mostly bisexual flowers, pluriseriate ovules (many times appearing uniseriate because of high anthotaxis), quincuncial, imbricate, or contorted corolla, relatively long style and often punctiform or apiculate stigma. Clearly, the entire tribe is badly in need of revision on a worldwide scale, because generic delimitation is often controversial and inconsistent even within a region. In the Neotropics, Aublet (1775), Urban (1922), Ducke (1930), and Lundell (1963, 1964, 1981a, 1981b, 1981c, 1981d, 1982) have segregated various groups from *Ardisia* as distinct genera, while in the Paleotropics, several genera have been synonymized (Stone 1993a, Larsen & C. M. Hu 1995, Miller & Pipoly 1993, Taton 1979). Finally, Stone (1993b) described one new Asian subgenus, *Scherantha*. At this time, a phylogenetic analysis of the tribe will be necessary to resolve the usually disparate classifications recognized in the Americas, Africa, Asia and the Pacific. Therefore, for the taxa I have described from those areas, (Miller & Pipoly

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1993; Pipoly 1991a, 1991b, 1992, 1994a, 1994b, 1995) I recognized as few segregates as possible (such as *Ctenaridisia* Ducke, *Gentlea* Lundell, *Synardisia* Lundell, and *Solonia* Urban for the Neotropics) and define the rest of *Ardisia* broadly, by informally recognizing a number of infrageneric groups. Routine determination of specimens sent as gift for determination from the many Andean exploration programs of the Missouri Botanical Garden resulted in the discovery of the following novelties, described herewith.

Ardisia premontana Pipoly, sp. nov. (Fig. 1)

Propter laminas magnas chartaceas ellipticas vel oblongas atque ad apices breviacuminatas, inflorescentiam terminalam bipinnatipaniculatamque, pedicellos obsoletos vel subobsoletos, margines sepalinos hyalinos, necnon antera paullo super basin dorsifixa, *A. albovirenti* valde arcte affinis, sed ab ea ramulis dense rufo-furfuraceo lepidotis (non glabris) angulatis vel subteretibus (nec teretibus), petiolis canaliculatis (non marginatis) 1.5–2.5 (nec 0.8–1.5) cm longisque, inflorescentia 17–19 (non 5–7.5) cm longa, calyce cupuliforme (non cotyliforme), lobis calycinis carinatis (non planis) glandulari-granulosis (nec glabris) ad apices obtusis (nec late rotundatis) secus margines glabris subintegris erosisque (nec integerrimis glandulari-ciliolatis), corolla 4–4.5 (non 5–6) mm longa irregulariter dividentique, lobis corollinis ovatis cucullatisque (non ellipticis planisque), filamentis antheris longioribus (non) subaequalioribus), antheris ad apices acutis (non aliquantam emarginatis), denique ovario obnapiformi (non ovoideo) praeclare distat.

Tree to 10 m tall. *Branchlets* angulate to subterete, 5–7 mm diam., densely rufous furfuraceous lepidote, early glabrescent. *Leaves* alternate; blades chartaceous, elliptic or oblong, 23.5–30.6 cm long, (8–)9–10.5(–11.7) cm wide, apically short-acuminate, the acumen ca. 0.5 mm long, basally acute to cuneate, slightly asymmetric, decurrent on the petiole, midrib canaliculate above, prominently raised below, smooth and sordid above, sparsely and minutely rufous lepidote below, glabrescent, densely but inconspicuously red punctate and punctate-lineate, secondary veins 36–48 pairs, notable but not prominent above and below, the margin entire, irregluar, flat, glabrous; petiole canaliculate, 1.5–2.5 cm long, densely and minutely furfuraceous lepidote tomentellous, glabrescent. *Inflorescence* terminal, pyramidal, bipinnately paniculate, 17–19 cm long, 11–24 cm wide, the rachis deeply angulate, densely rufous glandular-granulose, the branches spicate; inflorescence bract unknown; peduncle 1–1.5 cm, floral bracts membranaceous, linear, 1–1.2 mm long, 0.2–0.3 mm wide, cucullate, apically obtuse, densely glabrous above, glandular-granulose below, sparsely red punctate, the margin entire, glabrous; pedicels subobsolete to obsolete. *Flowers* 5-merous, chartaceous, yellow, 4–4.5 mm long; calyx narrowly and deeply cupuliform, 2.2–2.5 mm long, the tube 1–1.5 mm long, the lobes symmetric, ovate, 1–1.2 mm long,

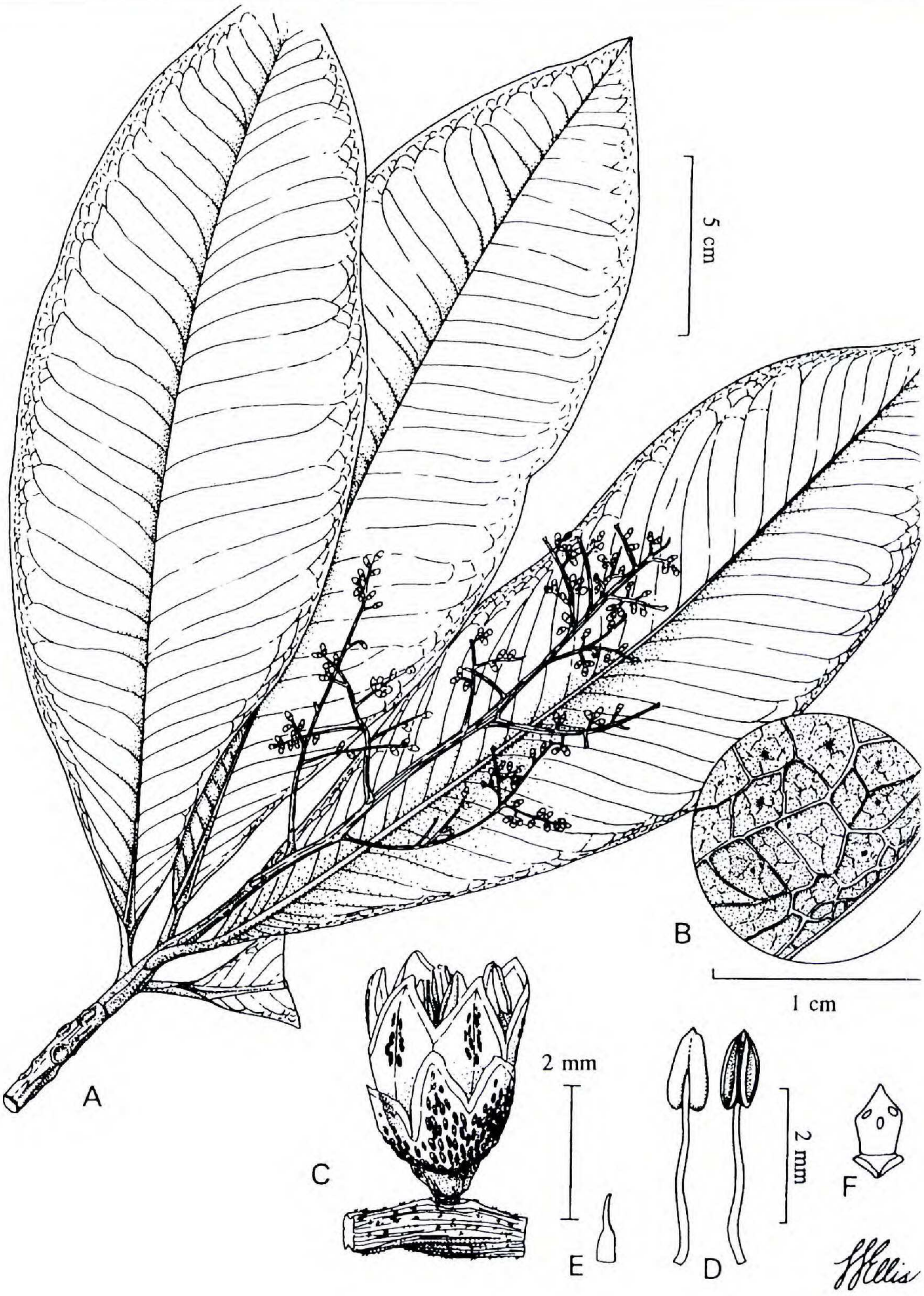

FIG. 1. *Ardisia premontana* Pipoly. A. Habit. B. Abaxial leaf surface, showing minute rufous lepidote scales. C. Flower, showing obsolete pedicel, cupuliform calyx with ovate lobes and campanulate corolla. D. Stamens, showing anthers with acute, apiculate apices. E. Pistil. F. Placenta, showing biseriate ovules. A–F, drawn from holotype.

0.6–1 mm wide, apically obtuse, medially carinate, minutely glandular-granulose, densely and prominently red punctate and punctate-lineate medially, the margin subentire except erose apically, hyaline, glabrous; corolla campanulate, 4–4.5 mm long, tube 1.8–2 mm long, the lobes irregularly divided, ovate, 2.2–2.6 mm long, 0.8–1 mm wide, hyaline, apically acute, somewhat cucullate, glabrous throughout, the margins entire; stamens 3.5–3.8 mm long, the filaments free, terete, glabrous, hyaline, 2.6–2.9 mm long, the anthers elliptic, 1.4–1.6 mm long, 0.7–0.8 mm wide, apically acute, apiculate, basally obtuse, dehiscent by wide longitudinal slits, the connective epunctate; pistil obnapiform, 1.5–1.7 mm long, the ovary globose, 0.6–0.8 mm wide, densely and prominently red punctate, the placenta turbinate, ovules 3–4, biseriate, the style 0.9–1.2 mm long, the stigma truncate. *Fruit* unknown.

TYPE: PERU. HUÁNUCO: La Divisoria, Tingo María-Pucallpa road near Loreto border, ca. 09°05' S, 75°50' W, 1,150–1,250 m, 29 Mar 1977 (fl), *A. Gentry, D. Daly & S. Cruz 18804* (HOLOTYPE: MO; ISOTYPES: BRIT, F, USM).

PARATYPE: ECUADOR. MORONA-SANTIAGO: Bomboiza, 17 km SE of Gualaquiza, 03°27' S, 78°34' W, 700 m, Jul–Oct 1985 (fl), *J. Zaruma 315* (MO, NY, QCNE).

Distribution.—Known only from the eastern slopes of the Andes of southern Ecuador and central Peru, at 700–1,250 m elevation.

Ecology and conservation status.—*Ardisia premontana* occurs in the species-rich premontane forests of the lower eastern slopes of the Andes, at the rim of the Amazon Basin. The Tingo María area is well-known for its many endemic species, yet still remains underexplored. Because *Ardisia premontana* is known only from two specimens, no determination of its conservation status is possible at this time.

Etymology.—The specific epithet refers to the habitat of *Ardisia premontana*, premontane moist forest.

Ardisia premontana is most closely related to *Ardisia albovirens* Mez (including *A. nigrovirens* MacBride), by virtue of its large, chartaceous, elliptic or oblong leaves with acute apices, the terminal bipinnate panicles, obsolete to subobsolete pedicels, hyaline sepal margins, and anthers dorsifixed just above the base. However, *Ardisia premontana* is clearly separated from *A. albovirens* by the densely rufous furfuraceous lepidote and angulate or subterete branchlets, the canaliculate, longer petioles, longer inflorescence, cupuliform calyx with carinate, glandular-granulose lobes with obtuse apices and glabrous subentire and erose margins, the shorter corolla irregularly divided with ovate, cucullate lobes, the filaments longer than the anthers, the anthers apically acute, and the obnapiform ovary. *Ardisia premontana* is best placed in subgenus *Ardisia*, because of the longitudinally dehiscent anthers, pyramidally paniculate, terminal inflorescence with spicate branches, symmetric calyx lobes and truncate stigma.

Ardisia zakii Pipoly, sp. nov. (Fig. 2)

Quoad ramulos crassos usque ad 1 cm diametros, folia magna coriaceaque, petiolos usque ad 3 cm longos, *A. carchianae* similans, sed ab ea ramulis angulatis longitudinaliter alatis (non teretibus), foliis alternis (non pseudoverticillatis), petiolis teretibus marginatisque (non canaliculatis), laminis desuper perpuncticulosis scrobiculatisque (non epunctatis laevibusque) subter manifeste minuteque atro-punctatis atque atro-punctato-lineatis (nec obscure pellucido-punctatis), secus margines revolutis (nec planis), ad bases obtusis (nec acutis), inflorescentia rameali (non terminlai), secus rhachides epunctatas (non atro-punctato-lineatas), lobis calycinis depresso-ovatis auriculatisque (non lineari-lanceolatis symmetricisque), ovario pentangulo (non tereti), necnon in sylvas montanas nebulosasque (non premontanas) incolens, perfacile cognoscitur.

Tree 8 m tall. *Branchlets* sharply angulate, ca. 1 cm diam., with longitudinal wings along the angles, glabrous, the pith hollow. *Leaves* alternate; blades coriaceous, very widely elliptic, 28–31 cm long, 15–16.5 cm wide, apically widely rounded with a small acute tip, basally obtuse, decurrent on petiole to base, nitid and glabrous above and below, perpuncticulose and scrobiculate above, smooth, black punctate and punctate-lineate below, the midrib flat above, prominently raised below, secondary veins 26–30 pairs, tertiary veins prominent above and below, margin entire, revolute, glabrous; petiole almost terete, prominently marginate, 2.5–3 cm long, glabrous. *Inflorescence* ramigerous, pyramidal, paniculate, 9–16 cm long, 7–10 cm wide; peduncle 3–4 cm long; rachis glandular-papillate, glabrescent; the branches spicate; inflorescence bracts unknown, floral bracts unknown; pedicel obsolete. *Flowers* 5-merous, coriaceous 5.2–5.9 mm long; calyx cupuliform, 1.8–2 mm long, the tube ca. 0.6–0.8 mm long, the lobes asymmetric and auriculate, depressed-ovate, 1–1.2 mm long, 1.2–1.4 mm wide, apically broadly rounded, basally rugose, the margin scarious, minutely erose apically, sparsely glandular-ciliolate, glabrescent; corolla rotate, 5.2–5.9 mm long, tube 5-angled, 3–3.3 mm long, the lobes deltate, 2–2.6 mm long and wide, reflexed 180° at anthesis apically acute, densely but inconspicuously pellucid punctate-lineate, the margin irregular, hyaline, glabrous; stamens 3.5–4 mm long, the filaments flat, hyaline, 2.2–2.5 mm long, glabrous, the anthers lanceolate, 1–1.2 mm long, 0.8–1 mm wide, apically apiculate, basally cordate, dehiscent by wide longitudinal slits; pistil lageniform, 5–5.3 mm long, the ovary ellipsoid, 5-angled, 3–3.5 m long, 1.5 mm diam., the style curved, 1.5 mm long, the ovules 5-8 in 2-3 rows, the stigma subcapitate, 3-lobed. *Fruit* globose, 5–7 mm diam., black at maturity, inconspicuously pellucid punctate.

TYPE: ECUADOR. PICHINCHA: Carretera Quito-San Juan Chiriboga-Empalme, Km 59, 16 km NW of road, 1,700–2,000 m, 23 Sep 1986 (fl, fr), *V. Zak 1298* (HOLOTYPE: MO; ISOTYPES: BRIT, QCNE).

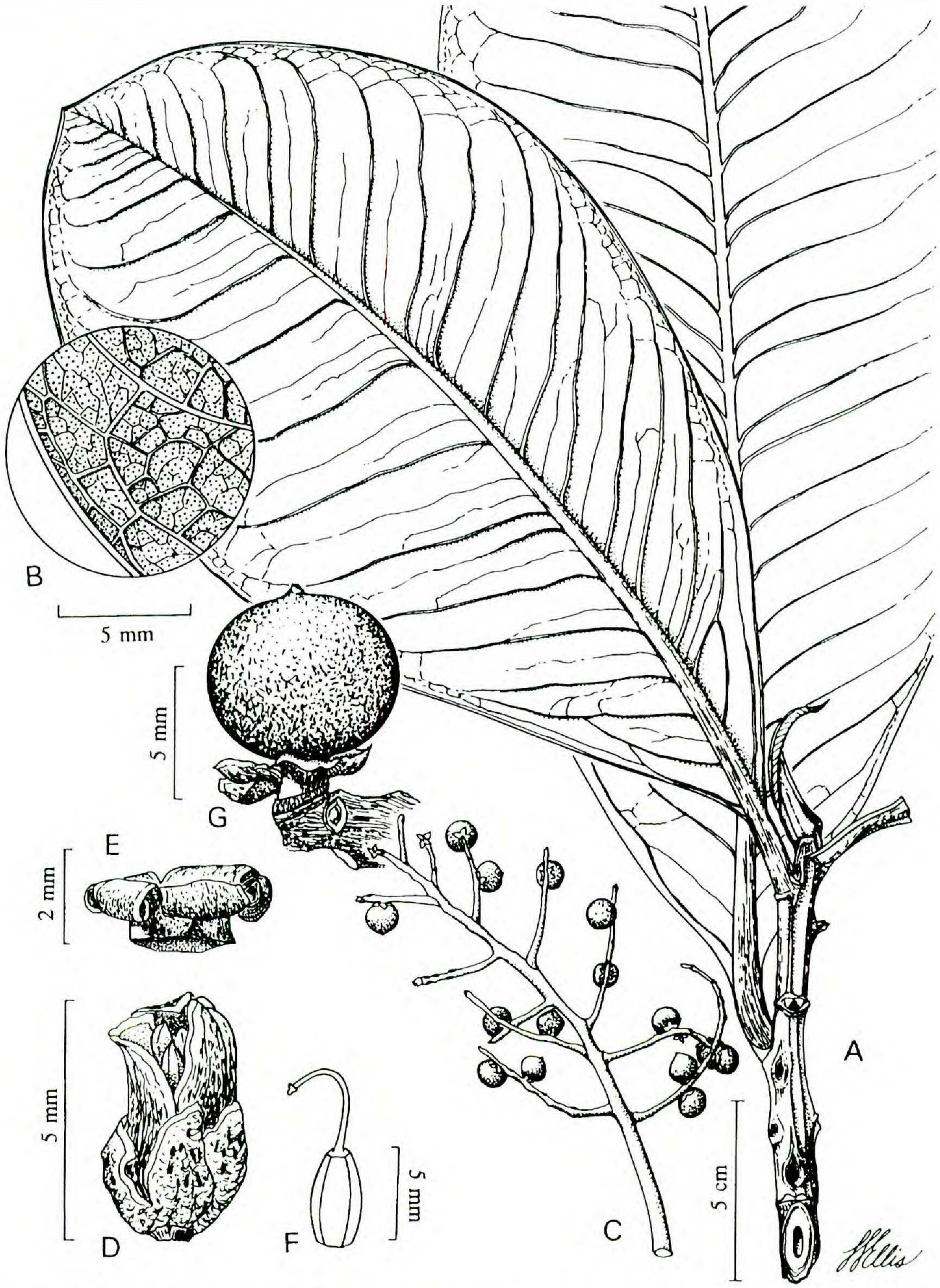

FIG. 2. *Ardisia zakii* Pipoly. A. Habit, showing winged branchlet. B. Detail of abaxial leaf surface, showing prominent tertiary veins. C. Portion of inflorescence, showing spicate branches. D. Flower bud, showing depressed-ovate calyx lobes and corolla lobes with hyaline margins. E. Corolla at anthesis, showing angled tube and reflexed lobes. F. Pistil, showing angled ovary and subcapitate stigma. G. Fruit. A–G, drawn from holotype.

Distribution.—Known only from the type.

Ecology and conservation status.—*Ardisia zakii* occurs in remnant cloud forests on steep slopes. With increasing forest destruction as roads are further developed, this species should be considered threatened.

Etymology.—It is with great pleasure that I dedicate this species to Vlastimil Zak, former collector and participant in the Missouri Botanical Garden's program of botanical exploration in Ecuador.

Ardisia zakii is most closely related to *Ardisia carchiana* Lundell, but is easily recognized by the angulate, longitudinally alate branchlets, marginate, terete petioles, the leaf blades with obtuse bases, adaxially perpuncticulose and scrobiculate, abaxially black punctate and punctate-lineate, the margins revolute, the pentangular ovary and the depressed-ovate, auriculate calyx lobes. The auriculate calyx lobes and lanceolate, longitudinally dehiscent anthers indicate placement in the group of *Ardisia* often segregated as *Auricularidisia* Lundell. The group has its center of diversity in Panama, with high concentrations of species also in Colombia.

Ardisia flavida Pipoly, sp. nov. (Fig. 3)

Ob ramulos angulatos crassosque, folia magna alternaque, lamina desuper perpuncticulosa costa canaliculata, petiolos usque ad 2.5 cm longos, inflorescentiam pyramido-bipinnatipaniculatam, pedicelos obsoletos, calycem cupuliformem, lobos calycinos secus margines erosos glabrosque, corollae lobos oblongos vel ellipticos, filamentia teretia, *A. monsalveae* valde arcte affinis, sed ab ea ramulis glabris (non ferrugineo-stellato-tomentosis), petiolis subteretibus marginatisque (non canaliculatis), floribus flavidos (non eborinos), lobis calycinis 1–1.2 (non 0.8–1) mm longis minute rufo-lepidotis (nec rufo-puberulis) lobis corollinis carinatis (nec planis) ad apices planis (nec cucullatis) pellucido- (nec atro-)-punctato-lineatis secus margines crenulatis (nec erosis), filamentis glabris (non dense rufo-papillosis), antheris ovatis (non linearis) ad apices apiculatis (nec emarginatis), denique stigmate capitato (non puntiforme) statim separabilis.

Shrub 4 m tall. *Branchlets* angulate, trigonal, 5–7 mm diam., glabrous. *Leaves* alternate; blades coriaceous, oblanceolate to elliptic, 19–25 cm long, 9–11.8 cm wide, apically widely rounded, shortly subacuminate, 3–5 mm long, basally obtuse, decurrent on the petiole, nitid and sparsely perpuncticulose above, pallid and inconspicuously black punctate below, midrib canaliculate above, prominently raised below, the secondary veins 25–36, margin entire, flat, scarious, glabrous; petiole subterete, marginate, 1.5–2.5 cm long, flat above, glabrous. *Inflorescence* terminal, pyramidal paniculate, 10–21 cm long, 8–16 cm wide at base; peduncle obsolete to 4 mm long; rachis sharply angulate, densely and minutely rubiginous glandular-granulose, the branches spicate; inflorescence, branch and floral bracts apparently early caducous, unknown; pedicels obsolete. *Flowers* membranaceous, yellow, 4–4.5 mm long; calyx deeply cupuliform, 3–3.4 mm long, unequally divided, the tube 1.3–1.5 mm long, the lobes slightly asymmet-

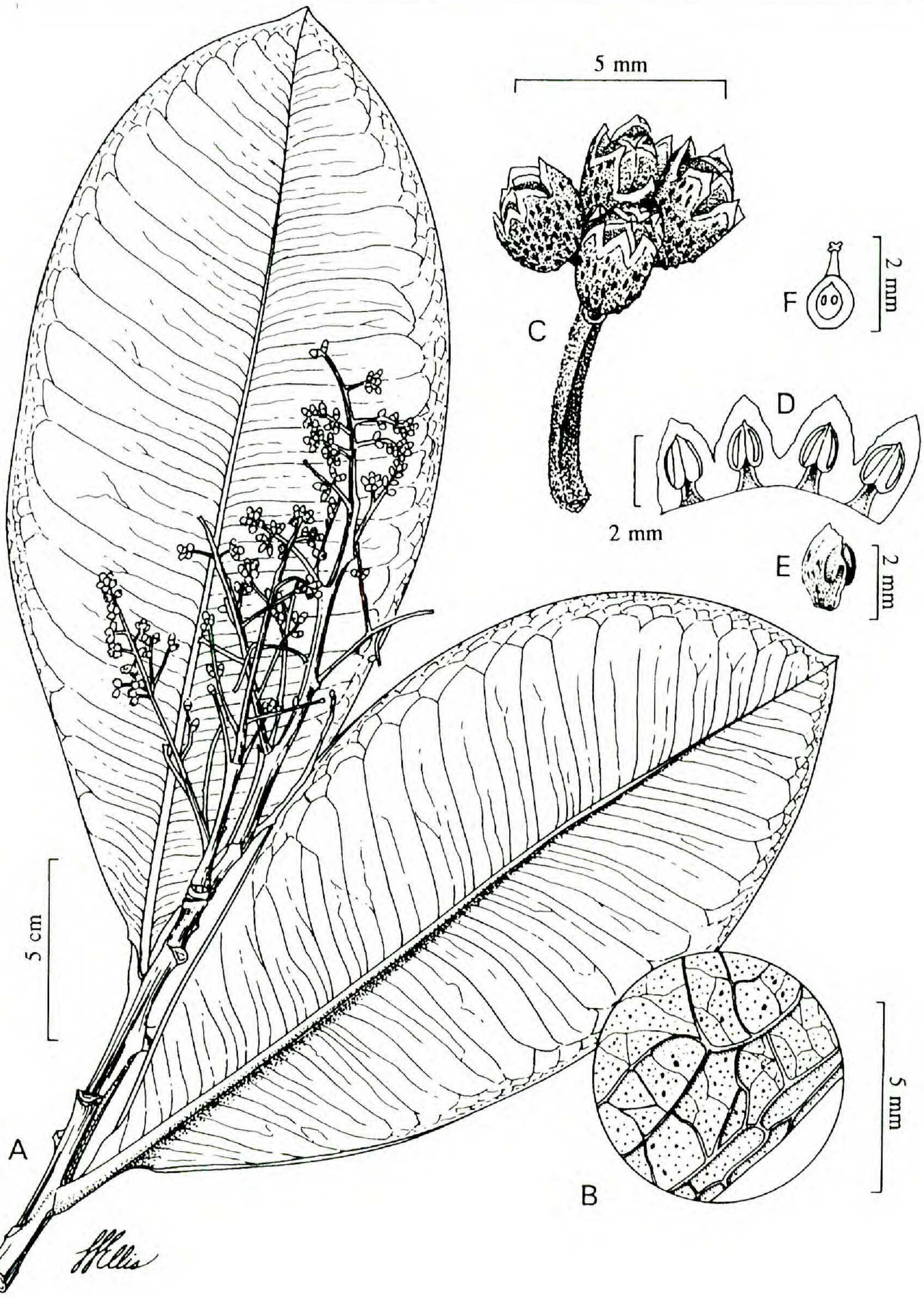

FIG. 3. *Ardisia flavida* Pipoly. A. Habit, showing terminal inflorescence and angulate branchlet. B. Detail of abaxial leaf surface, showing inconspicuous black punctations. C. Flower cluster at tip of inflorescence rachis branchlet. D. Open corolla, showing minutely crenulate margins, and apiculate anthers. E. Corolla lobe, showing medial ridge. F. Pistil, showing placenta and apparently uniseriate ovules. A–F, drawn from holotype.

ric, oblong, 2–2.2 mm long, 1.6–1.8 mm wide, apically obtuse to rounded, densely and prominently black punctate and punctate-lineate, densely and minutely rufous lepidote, hyaline, margin entire, scarious; corolla campanulate, 3–3.3 mm long, the tube 0.8–1 mm long, the lobes oblong to elliptic, 2–2.3 mm long, 0.9–1.1 mm wide, apically acute, hyaline, medially carinate, pellucid punctate and punctate-lineate, the margins minutely crenulate, glabrous; stamens 2–2.2 mm long, the filaments flat, 0.9–1.2 mm long, inserted at corolla base, hyaline, the anthers ovate, 1–1.3 mm long, 0.6–0.8 mm wide, subversatile, apically apiculate, basally cordate, dehiscent by large longitudinal slits, the connective epunctate; pistil obnapiform, 2–2.3 mm long, the ovary globose, 1–1.2 mm long and diam., the placenta depressed-globose, ovules 4, pluriseriate in a high spiral, thus appearing uniseriate, the style 0.8–1.1 mm long, the stigma capitate, 4-lobed. *Fruit* unknown.

TYPE: ECUADOR. ESMERALDAS: Canton San Lorenzo, 10 km SW of Lita, going up to the El Cristal Sector; 00°48' N, 78°30' W, 800 m, 10 Sep 1990 (fl bud), *D. Rubio & C. Quelal 664* (HOLOTYPE: MO; ISOTYPES: BRIT, QCNE).

Distribution.—Known only from the type.

Ecology and conservation status.—*Ardisia flavida* occurs at the limit of lowland forest with premontane forest. The forests of Esmeraldas form part of the Chocó Floristic Province, contiguous with the Cordillera Occidental of Colombia, an area that receives some of the highest rainfall known in tropical ecosystems. The coastal forests of Ecuador have very few old growth forest stands left, and thus, this species, along with its habitat, should be considered endangered.

Etymology.—The specific epithet refers to the yellow color of the flowers, a rarity among members of the genus.

The thick, angulate branchlets and large, alternate leaves with perpuncticulose blades and canaliculate costa, the petioles up to 2.5 cm long, and pyramidal bipinnately paniculate terminal inflorescense, obsolete pedicels, cupuliform calyx with lobes erose and glabrous along the margins, oblong to elliptic corolla lobes, and terete filaments, indicate that *Ardisia flavida* is most closely related to *Ardisia monsalveae* of Colombia. However, the glabrous branchlets, subterete petioles, yellow flowers, the longer, minutely rufous lepidote calyx lobes, the carinate, pellucid punctate-lineate corolla lobes with flat apices and crenulate margins, the glabrous filaments, ovate, apiculate anthers and capitate stigma permit easy separation. The terminal panicles with spicate branches, and apiculate anthers dehiscent by wide longitudinal slits indicates that *Ardisia flavida* is best placed in subgenus *Ardisia*, despite the fact that the style is not long and does not have a punctiform stigma. Clearly, the entire tribe is in great need of revision.

Ardisia websterii Pipoly, sp. nov. (Fig. 4)

Quoad ramulos stellato-tomentosos, filamenta longa, anthera lineari-lanceolata ad apices emarginata, necnon pedicelos obsoletos, *A. monsalveae* accedens, sed ab ea trunco uniaxiali (non multiaxiali), vestimento ramulino foliarique rufo- (non ferrugineo-) stellato-tomentoso, foliis pseudoverticillatis (non alternis), laminas ad bases semiauriculatis (non acutis), inflorescentia axillari (non terminali), lobis calycinis suborbicularibus (non ellipticis) ad apices late rotundatis (nec obtusis), lobis corollinis lineari-lanceolatis (non ellipticis) ad apices planis (nec cucullatis), filamentis glabris (non rufo-papillosis), denique stigmata capitata (non punctiforme) praeclare distinguitur.

Monoaxial tree (Corner's Architectural Model *sensu* Hall et al. 1978) to 3 m tall. *Branchlets* terete when fresh, drying angular, 8–12 mm diam., densely and minutely rufous stellate-tomentose, the tomentum persistent. *Leaves* pseudoverticillate; blades chartaceous, widely oblanceolate, (48–)52–60 cm long, 17–22 cm wide, apically acuminate, the acumen 3–4 cm long, gradually tapering to a truncate, semiauriculate base, midrib slightly elevated but canaliculate above, prominently raised below; sordid and glabrescent above, pallid and sparsely stellate pubescent below, tomentose along the secondary veins, inconspicuously pellucid punctate and punctate-lineate, the margin roughly sinuate-dentate, the tooth vascularized; petiole canaliculate, obsolete to 5 mm long, glabrous above, densely stellate tomentose below. *Inflorescence* lateral (axillary), at times produced in whorls between major whorls of leaves, a columnar thyrse 9–15(–20) cm long, 3–6 cm wide; peduncle 1.5–3 cm long; inflorescence bract foliaceous, membranaceous, oblong, 3–3.5 cm long, 1–1.2 cm wide, apically broadly rounded, gradually tapering to cuneate base, sparsely stellate tomentose above and below, densely and prominently black punctate and punctate-lineate, the margin entire, glabrous; secondary branch bracts foliaceous, membranaceous, oblong, 1.5–2.5 cm long, 0.4–0.6 cm wide, apically rounded, basally cuneate, otherwise like inflorescence bract; floral bracts membranaceous, linear, 3.2–3.5 mm long, 0.8–1 mm wide, apically narrowly acute to subulate, cucullate, hyaline, densely and prominently black punctate, very sparsely stellate tomentose below, the margin entire, glabrous; pedicel obsolete. *Flowers* 5-merous, membranaceous, pale pink, 5–6 mm long, hyaline; calyx cupuliform, 2.5–3.5 mm long, irregularly divided, tube 1.4–1.7 mm long, the lobes suborbicular, 1–1.8 mm long and wide, apically broadly rounded, densely punctate and punctate lineate medially, very sparsely lepidote, the margin hyaline, minutely erose, glabrous; corolla rotate, 5.5–6 mm long, the tube 2–2.4 mm long, the lobes linear lanceolate, 3.1–3.4 mm long, 0.7–1 mm wide, apically acute, hyaline, glabrous, the margin entire; stamens free, 6–6.6 mm long, exserted or anthers appearing versatile, the filaments free, 4.6–5 mm long, inserted at corolla base and adnate to 0.3 mm, hyaline, glabrous, the anthers linear-lanceolate,

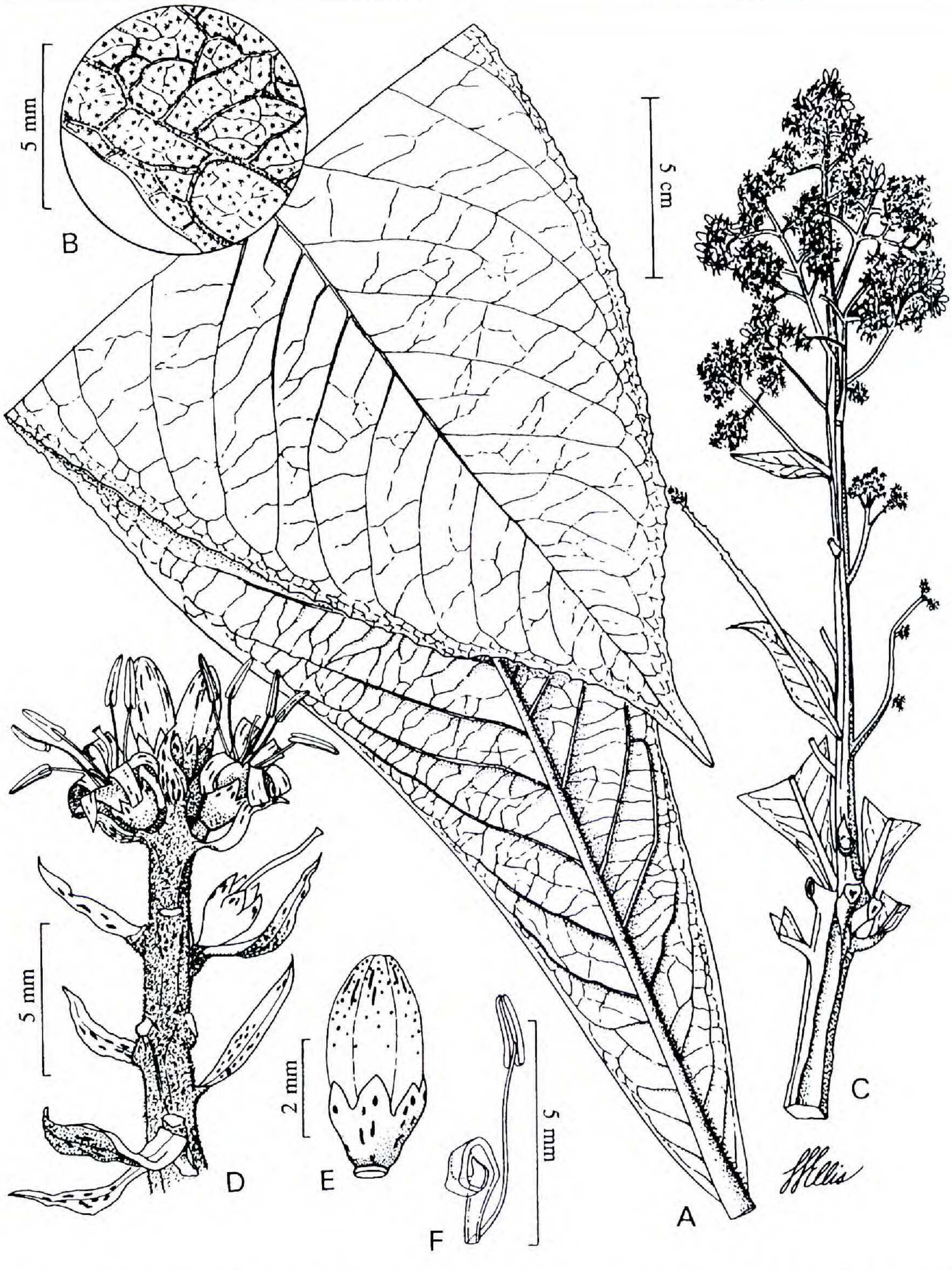

FIG. 4. *Ardisia websterii* Pipoly. A. Leaf, showing sinuate-dentate margin. B. Detail of abaxial leaf surface, showing stellate-tomentum. C. Inflorescence, showing leaflike bract and columnar thyrse morphology. D. Portion of inflorescence, showing floral bracts. E. Flower bud, showing cupuliform calyx and punctations. F. Corolla lobe and stamen, showing relative lengths of each. A–F, drawn from holotype.

2.1–2.8 mm long, apically narrowly acute to a minutely emarginate tip, basally deeply sagittate, dorsifixed ca. 1/3 from base, dehiscent by large longitudinal slits, the connective epunctate. Pistil obturbinate, 4.8–5.5 mm long, the ovary subglobose, 1–1.2 mm long, 0.7–0.9 mm wide, densely black punctate, glabrous, the style tortuous, 3.5–3.8 mm long, the placenta subglobose, the ovules 3-5, appearing uniseriate, the stigma subcapitate, 3-4 lobed. *Fruit* unknown.

TYPE: ECUADOR. PICHINCHA: Canton Quito; Parroquia Nanegal; Maquipucuna Protected Forest; 5 km airline SE of Nanegal, E side of río Tulambi, 00°06' N, 78°37.5' W; 1,350–1,400 m, 5 Sep 1993 (fl), *G. Webster 30307* (HOLOTYPE: BRIT; ISOTYPES: DAV, QCNE).

PARATYPES: ECUADOR. PICHINCHA: Canton Quito; Parroquia Nanegal; Maquipucuna Protected Forest; 6 km airline SE of Nanegal, along trail from Río Umachaca to Loma Sta. Lucia, 00°07' N, 78°37' W; 1,675 m, 6 Sep 1993 (fl), *G. Webster et al. 30361* (BRIT, DAV, QCNE), 5 km airline SE of Nanegal, above Río Tulambi, 1,550 m, 00°7.5 'N, 78°38.5 'W, 1,550 m, 31 Aug. 1993 (fl), *G. Webster et al. 30009* (DAV, QCNE).

Distribution.—*Ardisia websterii* appears to be endemic to the Maquipucuna Forest Reserve, Ecuador, at 1,350–1,675 m elevation.

Ecology and conservation status.—This species is a conspicuous element of the montane rainforest understory, growing on streambanks, just above high water marks. The Maquipucuna Forest Reserve seems well-protected at this time, so *Ardisia websterii* may be considered not under threat.

Etymology.—This species is named for Grady L. Webster, curator of the John M. Tucker Herbarium of the University of California at Davis and pre-eminent authority on the systematics of neotropical Euphorbiaceae.

Ardisia websterii with a monoaxial trunk and pseudoverticels of inflorescences, exhibits Corner's Architectural Model (Hallé et al. 1978). At first glance, it has the aspect of several members of *Cybianthus* subgenera *Wegeltia* and *Comomyrsine*, but the glabrous petals, long, free, exserted stamens, and anthers with deeply sagittate bases indicate placement in the genus *Ardisia*. While *Ardisia websterii* does not easily fit into any known subgenus of *Ardisia*, description of a new one is postponed until more neotropical species of the genus have been examined. *Ardisia websterii* approaches *A. monsalveae* in several aspects, most notably because of the stellate tomentum, long filaments, linear-lanceolate anthers with minutely emarginate tips and the obsolete pedicels. However, *Ardisia. websterii* is easily distinguished from *A. monsalveae* by the rufous vestiture, the pseudoverticillate, basally auriculate leaves, axillary inflorescence, suborbicular calyx lobes with broadly rounded apices, the linear-lanceolate corolla lobes with flat apices, the glabrous filaments and capitate stigma. Clearly, more study is needed of the entire large-leaved group of *Ardisia* in the Andes.

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